BRUHAT BANGALORE MAHANAGARA PALIKE

Construction of Arch and Providing Interlocking Tiles In Front of Sai Raba Temple And Construction of RCC Roof for Ramp Near Ganesha Temple in Ward No 17 & Widening and Improvements to Road From BEL Circle to Mattikere Fly Over

Rate Analysis-1

PWD SR 2018-19

Description of work	Unit	Basic Rate	Lead & Loading Unloading	AW 6%	Sub Total	TP+1%	Grand Total
...ing and constructing granite / trap / basalt size stone masonry ...mortar with cement mortar 1:8, edges of stones chisele dressed in ...not less than 15 cms high, bond stones at two m. apart in each ...ding cost of materials, labour, curing complete as per ...ations KBS 5.1.13 P.No 23, I.No.5.9	Cum	5654.09		565.41	6219.50	62.19	6281.69
...ing and laying in position plain cement concrete of mix 1:2:4 ...ment @ 240kgs, with 20mm and down size graded granite ...coarse aggregates @0.69cum and fine aggregates @0.459cum, ...cement concrete laid in layers not exceeding 15cms, thick, well ...ast in foundation, plinth and cills, including cost of all ...ding labour, HOM of machinery, curing complete as per ...ations Specification No. KBS 4.1.4.2/ (P.No.12, I.No.4.6	Cum	5919.71		591.97	6511.68	65.12	6576.80
...5.8.1 Constructing brick masonry inspection chamber ...x45cmm and 450mm depth, (clear inside dimension) for single ...ck thable moulded non-modular bricks of class designation ...ing cement mortar 1:5, C.I. cover with frame (light duty) 455x610mm ...mortar 1:5, total weight of cover with frame to be not less ...dimensions, total weight of cover 23kg and weight of frame 15kg) R.C.C. top ...kg weight of cover 23kg and weight of frame 15kg) R.C.C. top ...cement concrete 1:2:4 mix 20mm and downsize granite ...foundation concrete 1:5:10 with 40mm and downsize granite ...waste plastering 12mm thick with cement mortar 1:3, finish ...with a floating coat of cement on walls and bed concrete ...ete as per standard design including cost of materials, labour ...ete as per specificationsNo.KBS Page No. 73/ ...asonry, curing complete as per specificationsNo.KBS Page No. 73/ ...ge No 11.50 ...x60x60mm, and 450 depth, (clear inside dimension) for single ...ck, using table moulded non-modular bricks of class designation ...cement mortar 1:5 C.I cover with frame (light duty) 600x600mm, ...ge No 11.50.1	Nos	7064		706.40	7770.40	77.70	7848.10
...ishing of existing structures like culverts, bridges, retaining walls ...other structure comprising of masonry, cement concrete, wood ...k, steel work, including T&P and scaffolding wherever necessary, ...g the dismantled material, disposal of unserviceable material and ...ing the serviceable material with all lifts complete as per ...ifications. --do- II. By Mechanical Means. A. Cement Concrete ...ade M-15 & M-20.. MORTH Specification No. 202 . As Per Direction Of ...e Engineer Incharge P 139/ Item No. 18.20	Cum	390	40.96	23.40	454.36	4.54	458.90
...ation for road, drains and similar works KSRRB 300-1. ...work excavation by manual means in ordinary soil involving an ...erage horizontal throw upto 2 meters and an average lift upto 0.5 m, ...ensed surface leveled and sides neatly dressed, the disposed earth ...e roded neatly after breaking of clods complete as per ...ifications. MORTH / Chapter 3 . As Per Direction Of The Engineer ...harge P.NO 143 I.NO 19.1	Cum	130	97.96	13.00	143.00	1.43	144.43
...ting and laying Plain / Reinforced Cement Concrete design mix ...C with OPC @ 340kgs, with 20mm and down size graded granite ...e, coarse aggregates @0.70cum and fine aggregates @ 0.47cum, ...superplasticizer @3lts confirming to IS9103-1999 Reaffirmed- ...2004 Foundation complete as per Drawing and Technical ...ification including cost of all materials, labour, HOM curing, form ...etc scaffolding and centering complete as per specifications. ...RTH Specification No. 1500,1700 & 2100 . As Per Direction Of The ...eer Incharge (P-223/27.31)	Cum	5700.09		570.01	6270.10	62.70	6332.80
...ding T.M.T. steel reinforcement for R.C.C. work including ...ghtening, cutting, bending, hooking, placing in position, lapping ...ic welding wherever required, tying with binding wire and ...ering to the adjoining members wherever necessary complete as ...r slags (laps, hooks and wastage shall not be measured and paid) ...ed materials, labour, HOM complete as per specification. MORTH ...ification No.1600 & 2200 TMT Bars Fe 500 . As Per Direction Of ...e Engineer Incharge (P-229/28.8.2) PWD SR 2018-19	Ton	85468		5128.08	90596.08	905.96	91502.04
...ting & laying precast drain cover slab of 100 mm thickness in CM ...including cost of all materials, labour, curing, transportation, ...ding, unloading etc, complete as per the directions of the Engineer ...harge (0.90 x 0.60 x 0.10) . As Per Direction Of The Engineer ...ge	Sqm	2337		140.22	2477.22	24.77	2501.99
...ting & laying precast drain cover slab of 250 mm thickness in CM ...including cost of all materials, labour, curing, transportation, ...ding, unloading etc, complete as per the directions of the Engineer ...harge (1.2 x 0.60 x 0.25) . As Per Direction Of The Engineer ...ge	Sqm	5418		325.08	5743.08	57.43	5800.51

Scanned with CamScanner

Description of work	Unit	Basic Rate	Lead & Leading Unloading	AW 4%	Sub Total	TP+1%	Grand Total
...ial in soil using Hydraulic Excavator CK 90 and Tippers with ...ation for roadwork in soil with hydraulic excavator of ...city including cutting and loading in tippers ...bottom and side slopes, in accordance with requirements of ...cross sections, and transporting to the embankment ...complete as per specifications. MORTH Specification ... As Per Direction Of The Engineer Incharge P NO 143 1 NO	Cum	41	97.98	2.46	141.42	1.41	142.83
...ction of granular sub-base Grading V as sub base and drainage ...to providing coarse graded crushed stone aggregates of granite ...material , mixing in mechanical mix plant at OMC ...materials to work site, spreading in uniform layers ...graded on prepared surface, and compacting with vibratory ...achieve the 98% proctor density, complete as per ...as per 401 of MORTH V revision 1 NO 20 5 P NO 153	Cum	1882		112.92	1994.92	19.95	2014.87
...WBM-1.7 Providing, laying, spreading and compacting crushed ...aggregates of granite / trap / basalt to wet mix macadam ...specifications including pre mixing the material with water at OMC in ...central mix plant carriage of mixed materials by tipper to site, ...in uniform layers with paver in sub-base/base course on well ...surface and compacting with vibratory roller to achieve the ...density complete as per specifications. MORTH Specification ... 401 P NO 155 1 NO=20 18	Cum	1888		113.28	2001.28	20.01	2021.29
...ding and laying dense graded bituminous macadam using ...aggregates of specified grading, premixed with VG30 grade ...binder and, transporting the hot mix to work site, laying to ...grade, level and alignment, rolling with smooth wheeled, ...and tandem rollers to achieve the desired compaction as per ...complete in all respects complete as per ...ble 500-10 of morth V revision using 40/60 TPH ...Clause 505 of morth V revision as per IRC SP-53-2015 – do – using 40 ...H M P with mechanical paver Gr-II (50mm to 75mm) with ...VG-30 Bitumen. . As Per Direction Of The Engineer Incharge Item ...21.17.6/ PWD SR 2019-20 Issue Rate	Cum	6045		362.70	6407.70	64.08	6471.78
...ding and applying tack coat using 80/100 grade bitumen(VG10) ...the prepared black topped surfaces at 2.5 kg per 10 sqm, heating ...bitumen in boiler fitted with spray set (excluding cleaning of road ...surface) including cost of all materials, labour, HOM of machineries ...complete as per specifications. MORTH/Chapter 5 . As Per Direction Of ...the Engineer Incharge Page No. 158/ Item No. 21.7/ PWD SR 2019-20 ...ssue Rates	Sqm	12		0.72	12.72	0.13	12.85
...ding and laying bituminous concrete 40mm thick with hot mix ...plant, using crushed aggregates of specified grading, premixed with ...bituminous binder and filler, transporting the hot mix to work site, ...laying with a paver finisher to the required grade, level and alignment, ...rolling with smooth wheeled, vibratory and tandem rollers to achieve ...the desired compaction in all respects complete as per specifications. ...Clause 507 of MORTH V revision as per IRC SP-53-2015 – do – using 40- ...60 TPH capacity HMP with mechanical paver grading II (30-45mm) ...with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 ...bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics ...waste plastic) . . As Per Direction Of The Engineer Incharge Page No. ...172/ Item No. 21.23.6 PWD SR 2019-20 Issue Rates	Cum	7329		439.74	7768.74	77.69	7846.43

Scanned with CamScanner

Cement Rate upto 21-10-2019

Cement Rate As on 01-01-2021 (Issue rate)

Difference in cement cost

Sl No	Item	Sl no	Unit	Rate	Per Bag	103.69	Difference Cement cost	New Rate As per new issue rate
					Cement consumption In KG	in Bag		
	PCC							
1	PCC 1:2:4	4.1	Cum	5283.00	240	4.80	497.71	5780.71
2	PCC 1:3:6	4.2	Cum	5194.00	220	4.40	456.24	5650.24
3	PCC 1:3:6	4.3	Cum	5102.00	180	3.60	373.28	5475.28
4	PCC 1:3:6	4.4	Cum	5015.00	160	3.20	331.81	5346.81
4	PCC 1:2:4	4.5	Cum	5328.00	160	3.20	331.81	5659.81
5	PCC 1:3:6	4.7	Cum	5309.00	220	4.40	456.24	5765.24
5	PCC 1: 2:4 @ 300	4.5	Cum	5328.00	280	5.60	580.66	5908.66
6	PCC 1: 2:4 @ 240	4.6	Cum	5422.00	240	4.80	497.71	5919.71
7	PCC 1: 5:10 @150	22.1.2	Cum	3665.00	150	3.00	311.07	3976.07
7	PCC 1: 3 : 6 @150	34.1	Cum	4226.00	160	3.20	331.81	4557.81
							0.00	
							0.00	
	RCC						705.09	6517.09
1	RCC M25 with OPC 340 Kg footing	4.10	Cum	5812.00	340	6.8	663.62	6322.62
2	RCC M20 with OPC 320 Kg footing	4.11	Cum	5659.00	320	6.4	705.09	6750.09
3	RCC M25 with OPC 340 Kg Roof slab	4.12	Cum	6045.00	340	6.8	663.62	6555.62
4	RCC M20 with OPC 320 Kg Roof slab	4.13	Cum	5892.00	320	6.4	49.77	489.77
5	RCC M20 for Chajja	4.19	Sqmt	440.00	24	0.48	56.41	552.41
6	RCC M20 for Chajja	4.20	Sqmt	496.00	27.2	0.544	663.62	6107.62
7	RMC M20	4.49.1	Cum	5444.00	320	6.4	705.09	6202.09
8	RMC M25	4.49.2	Cum	5497.00	340	6.8	746.57	6344.57
9	RMC M30	4.49.3	Cum	5598.00	360	7.2	808.78	6612.78
10	RMC M35	4.49.4	Cum	5804.00	390	7.8	871.00	6880.00
11	RMC M40	4.49.5	Cum	6009.00	420	8.4	62.21	482.21
12	RCC Loft	4.56	Sqm	420.00	30	0.6	705.09	6202.09
13	RCC M30	4.49.2	Cum	5497.00	340	6.8	746.57	6749.57
13	RCC M25	26.5.10	Cum	6003.00	360	7.2	705.09	5700.09
14	RCC	27.31	Cum	4995.00	340	6.8	871.00	6389.00
		22.2.2	Cum	5518.00	420	8.4	0.00	

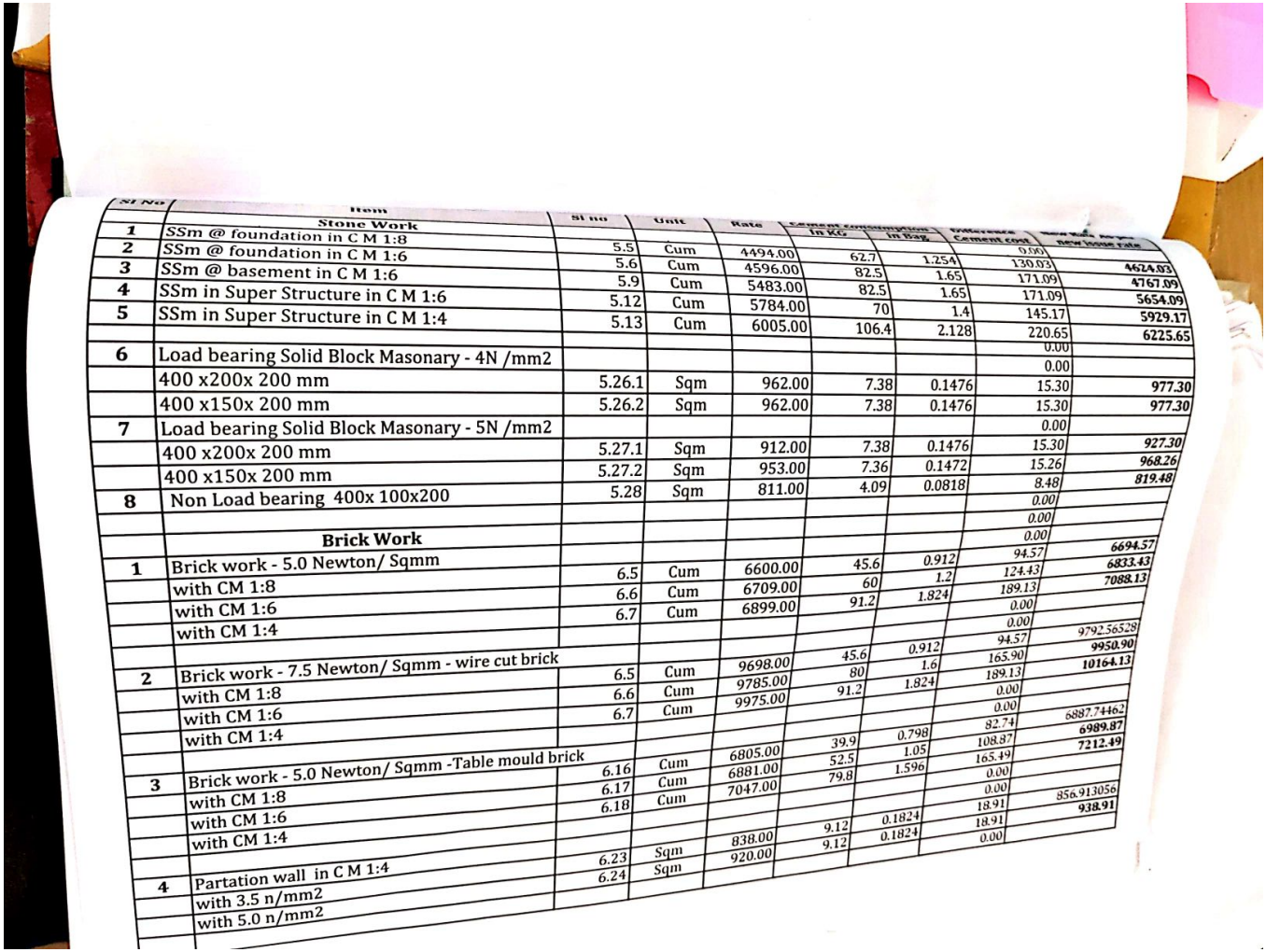
Note

Per Bag	350.00
Per Bag	349.00

Page no 1 Sl no 1 to 15 refer to KPWD

KPWD 4th quarter issue rate

Scanned with CamScanner



Sl No	Item	Sl no	Unit	Rate	Cement consumption in KG	in Bag	Difference Cement cost	New Item Rate
	Stone Work						0.00	
1	SSm @ foundation in C M 1:8	5.5	Cum	4494.00	62.7	1.254	130.03	4624.03
2	SSm @ foundation in C M 1:6	5.6	Cum	4596.00	82.5	1.65	171.09	4767.09
3	SSm @ basement in C M 1:6	5.9	Cum	5483.00	82.5	1.65	171.09	5654.09
4	SSm in Super Structure in C M 1:6	5.12	Cum	5784.00	70	1.4	145.17	5929.17
5	SSm in Super Structure in C M 1:4	5.13	Cum	6005.00	106.4	2.128	220.65	6225.65
							0.00	
6	Load bearing Solid Block Masonary - 4N /mm2						0.00	
	400 x200x 200 mm	5.26.1	Sqm	962.00	7.38	0.1476	15.30	977.30
	400 x150x 200 mm	5.26.2	Sqm	962.00	7.38	0.1476	15.30	977.30
7	Load bearing Solid Block Masonary - 5N /mm2						0.00	
	400 x200x 200 mm	5.27.1	Sqm	912.00	7.38	0.1476	15.30	927.30
	400 x150x 200 mm	5.27.2	Sqm	953.00	7.36	0.1472	15.26	968.26
8	Non Load bearing 400x 100x200	5.28	Sqm	811.00	4.09	0.0818	8.48	819.48
							0.00	
							0.00	
	Brick Work						0.00	
1	Brick work - 5.0 Newton/ Sqmm						94.57	6694.57
	with CM 1:8	6.5	Cum	6600.00	45.6	0.912	124.43	6833.43
	with CM 1:6	6.6	Cum	6709.00	60	1.2	189.13	7088.13
	with CM 1:4	6.7	Cum	6899.00	91.2	1.824	0.00	
							0.00	
2	Brick work - 7.5 Newton/ Sqmm - wire cut brick						94.57	9792.56528
	with CM 1:8	6.5	Cum	9698.00	45.6	0.912	165.90	9950.90
	with CM 1:6	6.6	Cum	9785.00	80	1.6	189.13	10164.13
	with CM 1:4	6.7	Cum	9975.00	91.2	1.824	0.00	
							0.00	
3	Brick work - 5.0 Newton/ Sqmm -Table mould brick						82.74	6887.74462
	with CM 1:8	6.16	Cum	6805.00	39.9	0.798	108.87	6989.87
	with CM 1:6	6.17	Cum	6881.00	52.5	1.05	165.49	7212.49
	with CM 1:4	6.18	Cum	7047.00	79.8	1.596	0.00	
							0.00	
4	Partation wall in C M 1:4	6.23	Sqm	838.00	9.12	0.1824	18.91	856.913056
	with 3.5 n/mm2	6.24	Sqm	920.00	9.12	0.1824	18.91	938.91
	with 5.0 n/mm2						0.00	

Scanned with CamScanner

Sl no	Item	Sl no	Unit	Rate	Cement quantity per sqm in bag	Cement cost	Total cost per sqm
1	**Flooring**						
	Flooring fine dressed stone	14.4	Sqm	3241.000	0.165	17.11	3258.11
2	Ceramic tiles 30x 30x6 flooring	14.36.2	Sqm	1210.00	0.19	19.70	1229.70
3	Ceramic tiles 30x 60x6 - Dodoing	14.41.2	Sqm	1632.00	0.18	18.66	1650.66
4	Ceramic tiles 30x 45x6 - Dodoing	14.41.3	Sqm	1275.00	0.18	18.66	1293.66
	Pointing					0.00	
1	20 mm deep ruled pointing					0.00	
	with CM 1:3	15.8	Sqm	46.00	0.180	18.66	64.66
						0.00	
	Plastering					0.00	
1	12 mm thick single coat brick work					0.00	
	with CM 1:3	15.21	Sqm	235.00	0.110	11.41	246.41
	with CM 1:4 - ceiling	15.22	Sqm	225.00	0.098	10.16	235.16
						0.00	
2	15 mm thick single coat					0.00	
	with CM 1:3	15.12	Sqm	234.00	0.14	14.52	248.52
	with CM 1:4	15.13	Sqm	221.00	0.11	11.41	232.41
	with CM 1:6	15.14	Sqm	208.00	0.08	8.30	216.30
						0.00	
3	18 mm thick single coat					0.00	
	with CM 1:3	15.15	Sqm	276.00	0.16	16.59	292.59
	with CM 1:4	15.16	Sqm	261.00	0.13	13.48	274.48
	with CM 1:6	15.17	Sqm	245.00	0.09	9.33	254.33
						0.00	
						0.00	
						0.00	
					0.125	12.96	217.96
					0.08	8.30	200.30
				205.00		0.00	
4	15 mm thick Rough coatcoat	15.30	Sqm	192.00		0.00	311.81
	with CM 1:4	15.31	Sqm			22.81	287.59
	with CM 1:6				0.22	16.59	
					0.16		
		15.18	Sqm	289.00			
5	20 mm thick single coat	15.19	Sqm	271.00			
	with CM 1:3						
	with CM 1:4						

Scanned with CamScanner